## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 105229

Source:

Date Processed by STIC:

ENTERED



PCT

RAW SEQUENCE LISTING DATE: 02/02/2005
PATENT APPLICATION: US/10/522,297 TIME: 15:22:03

Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

```
4 <110> APPLICANT: MERCK PATENT GMBH
     5
             BAKER, Matthew
             CARR, Francis J.
     8 <120> TITLE OF INVENTION: T-CELL EPITOPES IN ERYTHROPOIETIN
    11 <130> FILE REFERENCE: MER-137
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/522,297
C--> 13 <141> CURRENT FILING DATE: 2005-01-24
     13 <150> PRIOR APPLICATION NUMBER: PCT/EP2003/008725
    14 <151> PRIOR FILING DATE: 2003-08-07
    16 <150> PRIOR APPLICATION NUMBER: EP02017914.9
    17 <151> PRIOR FILING DATE: 2002-08-09
    19 <160> NUMBER OF SEQ ID NOS: 61
    21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
    23 <210> SEQ ID NO: 1
    24 <211> LENGTH: 166
    25 <212> TYPE: PRT
    26 <213> ORGANISM: Homo sapiens
    28 <400> SEQUENCE: 1
    29 Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu
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    31 Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His
                   20
                                    . 25
    33 Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe
    35 Tyr Ala Trp Lys Arg Met Glu Val Gly Gln Gln Ala Val Glu Val Trp
                                55
     37 Gln Gly Leu Ala Leu Leu Ser Glu Ala Val Leu Arg Gly Gln Ala Leu
                            70
    39 Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu Gln Leu His Val Asp
                                            90
                       85
     41 Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr Leu Leu Arg Ala Leu
                   100
                                        105
    43 Gly Ala Gln Lys Glu Ala Ile Ser Pro Pro Asp Ala Ala Ser Ala Ala
               115
                                    120
     45 Pro Leu Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val
                                135
     47 Tyr Ser Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala
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    49 Cys Arg Thr Gly Asp Arg
    53 <210> SEQ ID NO: 2
     54 <211> LENGTH: 33
    55 <212> TYPE: PRT
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Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

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56 <213> ORGANISM: Homo sapiens
58 <400> SEQUENCE: 2
59 Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile
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61 Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val
62
63 Pro
67 <210> SEQ ID NO: 3
68 <211> LENGTH: 33
69 <212> TYPE: PRT
70 <213> ORGANISM: Homo sapiens
72 <400> SEQUENCE: 3
73 Arg Gly Gln Ala Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu
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                                       10
75 Gln Leu His Val Asp Lys Ala Val Ser Gly Leu Arg Ser Leu Thr Thr
76
               20
77 Leu
81 <210> SEQ ID NO: 4
82 <211> LENGTH: 33
83 <212> TYPE: PRT
84 <213> ORGANISM: Homo sapiens
86 <400> SEQUENCE: 4
87 Arg Thr Ile Thr Ala Asp Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser
                                       10
                    5
89 Asn Phe Leu Arg Gly Lys Leu Lys Leu Tyr Thr Gly Glu Ala Cys Arg
90
              20
                                   25
91 Thr
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 21
97 <212> TYPE: PRT
98 <213> ORGANISM: Homo sapiens
100 <400> SEQUENCE: 5
101 Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser
102 1
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                    5
103 Leu Asn Glu Asn Ile
104
                20
107 <210> SEQ ID NO: 6
108 <211> LENGTH: 21
109 <212> TYPE: PRT
110 <213> ORGANISM: Homo sapiens
112 <400> SEQUENCE: 6
113 Arg Gly Gln Ala Leu Leu Val Asn Ser Ser Gln Pro Trp Glu Pro Leu
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114 1
115 Gln Leu His Val Asp
116
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119 <210> SEQ ID NO: 7
120 <211> LENGTH: 21
121 <212> TYPE: PRT
122 <213> ORGANISM: Homo sapiens
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Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

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124 <400> SEQUENCE: 7
125 Thr Phe Arg Lys Leu Phe Arg Val Tyr Ser Asn Phe Leu Arg Gly Lys
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126 1
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127 Leu Lys Leu Tyr Thr
128
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131 <210> SEQ ID NO: 8
132 <211> LENGTH: 12
133 <212> TYPE: PRT
134 <213> ORGANISM: Homo sapiens
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137 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala
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141 <210> SEQ ID NO: 9
142 <211> LENGTH: 15
143 <212> TYPE: PRT
144 <213 > ORGANISM: Homo sapiens
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147 Lys Val Val Asp Gln Ile Lys Lys Ile Ser Lys Pro Val Gln His
148 1
151 <210> SEQ ID NO: 10
152 <211> LENGTH: 15
153 <212> TYPE: PRT
154 <213> ORGANISM: Artificial Sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: Potential epitope sequences
159 <400> SEQUENCE: 10
160 Ala Pro Pro Arg Leu Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr
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164 <210> SEQ ID NO: 11
165 <211> LENGTH: 15
166 <212> TYPE: PRT
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Potential epitope sequences
172 <400> SEQUENCE: 11
173 Arg Leu Ile Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu
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177 <210> SEQ ID NO: 12
178 <211> LENGTH: 15
179 <212> TYPE: PRT
180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Potential epitope sequences
185 <400> SEQUENCE: 12
186 Cys Asp Ser Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu
190 <210> SEQ ID NO: 13
191 <211> LENGTH: 15
192 <212> TYPE: PRT
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Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

193 <213> ORGANISM: Artificial Sequence 195 <220> FEATURE: 196 <223> OTHER INFORMATION: Potential epitope sequences 198 <400> SEQUENCE: 13 199 Arg Val Leu Glu Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn 200 1 5 203 <210> SEQ ID NO: 14 204 <211> LENGTH: 15 205 <212> TYPE: PRT 206 <213> ORGANISM: Artificial Sequence 208 <220> FEATURE: 209 <223> OTHER INFORMATION: Potential epitope sequences 211 <400> SEQUENCE: 14 212 Glu Arg Tyr Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr 10 216 <210> SEQ ID NO: 15 217 <211> LENGTH: 15 218 <212> TYPE: PRT 219 <213> ORGANISM: Artificial Sequence 221 <220> FEATURE: 222 <223> OTHER INFORMATION: Potential epitope sequences 224 <400> SEQUENCE: 15 225 Leu Leu Glu Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys Ala 226 1 229 <210> SEQ ID NO: 16 230 <211> LENGTH: 15 231 <212> TYPE: PRT 232 <213> ORGANISM: Artificial Sequence 234 <220> FEATURE: 235 <223> OTHER INFORMATION: Potential epitope sequences 237 <400> SEQUENCE: 16 238 Ala Lys Glu Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys 10 239 1 242 <210> SEQ ID NO: 17 243 <211> LENGTH: 15 244 <212> TYPE: PRT 245 <213> ORGANISM: Artificial Sequence 247 <220> FEATURE: 248 <223> OTHER INFORMATION: Potential epitope sequences 250 <400> SEQUENCE: 17 251 Ala Glu Asn Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn 10 255 <210> SEQ ID NO: 18 256 <211> LENGTH: 15 257 <212> TYPE: PRT 258 <213> ORGANISM: Artificial Sequence 260 <220> FEATURE: 261 <223> OTHER INFORMATION: Potential epitope sequences

263 <400> SEQUENCE: 18

Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

264 Ile Thr Thr Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile 265 1 268 <210> SEQ ID NO: 19 269 <211> LENGTH: 15 270 <212> TYPE: PRT 271 <213> ORGANISM: Artificial Sequence 273 <220> FEATURE: 274 <223> OTHER INFORMATION: Potential epitope sequences 276 <400> SEQUENCE: 19 277 Gly Cys Ala Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro 10 15 278 1 281 <210> SEQ ID NO: 20 282 <211> LENGTH: 15 283 <212> TYPE: PRT 284 <213> ORGANISM: Artificial Sequence 286 <220> FEATURE: 287 <223> OTHER INFORMATION: Potential epitope sequences 289 <400> SEQUENCE: 20 290 Glu His Cys Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys 291 1 294 <210> SEQ ID NO: 21 295 <211> LENGTH: 15 296 <212> TYPE: PRT 297 <213> ORGANISM: Artificial Sequence 299 <220> FEATURE: 300 <223> OTHER INFORMATION: Potential epitope sequences 302 <400> SEQUENCE: 21 303 Ser Leu Asn Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe 10 307 <210> SEQ ID NO: 22 308 <211> LENGTH: 15 309 <212> TYPE: PRT 310 <213> ORGANISM: Artificial Sequence 312 <220> FEATURE: 313 <223> OTHER INFORMATION: Potential epitope sequences 315 <400> SEQUENCE: 22 316 Glu Asn Ile Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp 317 1 320 <210> SEQ ID NO: 23 321 <211> LENGTH: 15 322 <212> TYPE: PRT 323 <213> ORGANISM: Artificial Sequence 325 <220> FEATURE: 326 <223> OTHER INFORMATION: Potential epitope sequences 328 <400> SEQUENCE: 23 329 Thr Val Pro Asp Thr Lys Val Asn Phe Tyr Ala Trp Lys Arg Met 5 10 333 <210> SEQ ID NO: 24 334 <211> LENGTH: 15

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/522,297

DATE: 02/02/2005 TIME: 15:22:04

Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:61; Xaa Pos. 25,35,88,91,93,95,141,142,144,145,148,149,153

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/522,297

DATE: 02/02/2005 TIME: 15:22:04

Input Set : A:\MER137SEQ.TXT

Output Set: N:\CRF4\02022005\J522297.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:822 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order! L:828 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:834 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:841 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:848 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:855 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:860 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61 L:863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:16 M:341 Repeated in SeqNo=61